METEOROLOGY

Waterless Season Disaster

Farmers in Middle Rio Grande region, usually heavily irrigated, face prospect of no water in July and August. Rain and snow only 43% of normal.

➤ THOUSANDS of farmers in the heavilyirrigated Middle Rio Grande Valley of New Mexico today face a virtually waterless season.

With a second consecutive year of drought shaping up, expected Rio Grande runoff now is estimated at about 30% of normal. Water behind key dams is dangerously low or almost gone.

This means that if the drought goes on, the 80,000-odd Middle Valley acres will have no water in July and August, the heavy irrigating season, and that water for the lush cotton lands in southern New Mexico and west Texas will be severely short.

The badly needed rain and snow be tween last Oct. 1 and the start of March was only 43% of normal.

The critical situation, part of general dryness in the Southwest, also brought these developments:

- 1. There's a likelihood of a second consecutive wheat failure in eastern New Mexico and Colorado, western edge of the dust bowl of the 30's.
- 2. Farmers and ranchers have banded together to hire commercial rainmakers in the hope of getting relief, despite the cries of others that the rainmakers may have caused the present situation.
- 3. The Budget Bureau has approved a \$2,000,000 appropriation for relief-aimed emergency work on the already Congressapproved \$73,000,000 Middle Rio Grande Project.

Directors of the Middle Rio Grande Conservancy District, heart of the troubled area, have told water users to plant for the summer season at their own risk. Damage to permanent crops such as orchards and alfalfa is feared.

They advised farmers to drill wells to supplement the short water supply, and hundreds were being sunk along the river with no certain knowledge of the effects on underground water tables.

The directors also asked for a scientific investigation of the effect of rainmaking on moisture conditions. The rainmakers, criticized from several sides, have denied that their operations caused the present situation.

In eastern New Mexico and Colorado, the situation boils down to how soon moisture will come and what the intensity of the now beginning seasonal winds will

Except for a few areas, the winter wheat must have moisture within no more than 30 days to live. The situation is complicated in New Mexico by infestations of cut worms, aphis and greenbugs.

It is successive wheat failures that cause dust bowls, and so emergency tilling to discourage wind erosion already has begun.

But Soil Conservation Service spokesmen said the needed moisture may come in time. They expressed belief that if the worst happens, farmers' knowledge of soil-saving practices will help control the situation.

With prospects for good ranges and crops evaporating along with remaining moisture, farmers and ranchers have contracted for rainmaking activities over almost the entire state.

Associations usually are formed to raise what is said to be sometimes as much as \$25,000 to hire rainmakers, who "salt" moisture-bearing clouds with chemicals to cause rain over certain areas.

The \$2,000,000 appropriation for the Middle Valley would be used to dredge a channel through a 10,000-acre swamp land in central New Mexico where water-hungry salt cedars sponge up much water.

Science News Letter, April 7, 1951

SCIENCE NEWS LETTER

VOL. 59 APRIL 7, 1951

45,300 copies of this issue printed

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C., NOrth 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; yrs., \$14.50; single copy, 15 cents, more than x months old, 25 cents. No charge for foreign

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright, 1951, by Science Service, Inc. Republication of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) and THINGS of Science (monthly).

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C. under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Cade 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to periodical Literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., PEnnsylvania 6-5566 and 360 N. Michigan Ave., Chicago. STAte 2-4822.

SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Edwin G. Conklin, Princeton University; Karl Lark-Horovitz, Purdue University; Kirley F. Mather, Harvard University. Nominated by the National Academy of Science: Harlow Shapley, Harvard College Observatory; R. A. Millikan, California Institute of Technology; L. A. Maynard, Cornell University. Nominated by the National Research Council: Ross G. Harrison, Yale University; Alexander Wetmore, Secretary, Smithsonian Institution; Rene J. Dubos, Rockefeller Institute for Medical Research. Nominated by the Journalistic Profession: A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. Nominated by the E. W. Scripps Estate: H. L. Smithton, E. W. Scripps Trust; Frank R. Ford, Evansville Press; Charles E. Scripps, Scripps Howard Newspapers.

Officers—President: Harlow Shapley; Vice Presi-

Officers—President: Harlow Shapley; Vice President and chairman of Executive Committee: Alexander Wetmore; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, A. C. Monahan, Marjarie Van de Water, Martha G. Morrow, Ann Ewing, Wadsworth Likely. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. In London: J. G. Feinberg.

Question Box

GENERAL SCIENCE

Why are Air Force men searching for floating islands in the Arctic? p. 223. GEOLOGY

How do soils and dirt aid FBI in solving crimes? p. 215. MATHEMATICS

What kinds of brains do Soviet scientists now have? p. 216. MEDICINE What elemental gas has been found to be a good surgical anesthetic? p. 215.

MILITARY SCIENCE What are ways in which enemy bomb planes could be stopped? p. 214.

ORNITHOLOGY

What color do wrens avoid for their nests?

PHYSICS

How was helium 3 frozen for the first time? p. 219.

PHYSIOLOGY

How can doctors now tell whether a person is old or young at 60? p. 216.

PSYCHOLOGY

What are reasons for proposing study of disaster effects? p. 213.
How are psychologists answering question, "Which way is up?"? p. 223.

Photographs: Cover, Consolidated Vultee Aircraft; p. 211, Naval Ordnance Laboratory; p. 213, University of California at Los Angeles; p. 215, U. S. Air Force.